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1600

RAW SEQUENCE LISTING   DATE: 08/21/2002
PATENT APPLICATION: US/09/202,549D   TIME: 15:19:43

Input Set : **A:\PTO.VSK.txt**
Output Set: **N:\CRF4\08212002\I202549D.raw**

```
   4 <110> APPLICANT: Tsichlis, Philip
   5        Grimes, Leighton H
   6        Zweidler-McKay, Patrick
   9 <120> TITLE OF INVENTION: NUCLEIC ACID MOLECULE FOR ENHANCING GENE EXPRESSION
  12 <130> FILE REFERENCE: FCCC96-11
  15 <140> CURRENT APPLICATION NUMBER: US 09/202,549D
  16 <141> CURRENT FILING DATE: 1999-10-12
  19 <150> PRIOR APPLICATION NUMBER: PCT/US97/10486
  20 <151> PRIOR FILING DATE: 1997-06-17
  23 <150> PRIOR APPLICATION NUMBER: US 60/019,808
  24 <151> PRIOR FILING DATE: 1996-06-17
  27 <160> NUMBER OF SEQ ID NOS: 70
  30 <170> SOFTWARE: PatentIn version 3.1
  33 <210> SEQ ID NO: 1
  34 <211> LENGTH: 12
  35 <212> TYPE: DNA
  36 <213> ORGANISM: Artificial Sequence
W--> 37 <220> FEATURE:
  38 <223> OTHER INFORMATION: Gfi-1 binding sequence
W--> 39 <220> FEATURE:
  40 <221> NAME/KEY: misc_feature
  41 <222> LOCATION: (1)..(1)
  42 <223> OTHER INFORMATION: "n" is any nucleotide
W--> 44 <220> FEATURE:
  45 <221> NAME/KEY: misc_feature
  46 <222> LOCATION: (9)..(9)
  47 <223> OTHER INFORMATION: "n" is any nucleotide
  49 <400> SEQUENCE: 1
W--> 50 naaatcacng ca                                    12
  53 <210> SEQ ID NO: 2
  54 <211> LENGTH: 12
  55 <212> TYPE: DNA
  56 <213> ORGANISM: Artificial Sequence
  58 <220> FEATURE:
  59 <223> OTHER INFORMATION: Gfi-1 binding sequence
W--> 60 <220> FEATURE:
  61 <221> NAME/KEY: misc_feature
  62 <222> LOCATION: (9)..(9)
  63 <223> OTHER INFORMATION: "n" is "t" or "a"
  65 <400> SEQUENCE: 2
W--> 66 taaatcacng ca                                    12
  69 <210> SEQ ID NO: 3
  70 <211> LENGTH: 12
```

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Input Set : A:\PTO.VSK.txt
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     71 <212> TYPE: DNA
     72 <213> ORGANISM: Artificial Sequence
     74 <220> FEATURE:
     75 <223> OTHER INFORMATION: An expression reulatory DNA segment
W--> 76 <220> FEATURE:
     77 <221> NAME/KEY: misc_feature
     78 <222> LOCATION: (1)..(1)
     79 <223> OTHER INFORMATION: "n" is any nucleotide
W--> 81 <220> FEATURE:
     82 <221> NAME/KEY: misc_feature
     83 <222> LOCATION: (3)..(3)
     84 <223> OTHER INFORMATION: "n" is any nucleotide
W--> 86 <220> FEATURE:
     87 <221> NAME/KEY: misc_feature
     88 <222> LOCATION: (4)..(5)
     89 <223> OTHER INFORMATION: "n" is "q" "c" or "t", or is absent, or is an oligonucleotide
of
     90      two or more nucleotides
W--> 92 <220> FEATURE:
     93 <221> NAME/KEY: misc_feature
     94 <222> LOCATION: (6)..(6)
     95 <223> OTHER INFORMATION: "n" is "a" "g" or "c", or is absent, or is an oligonucleotide
of
     96      two or more nucleotides
W--> 98 <220> FEATURE:
     99 <221> NAME/KEY: misc_feature
     100 <222> LOCATION: (9)..(9)
     101 <223> OTHER INFORMATION: "n" is "a" "g" or "c", or is absent, or is an
oligonucleotide of
     102      two or more nucleotides
     104 <400> SEQUENCE: 3
W--> 105 nannnnacng ca                                                   12
     108 <210> SEQ ID NO: 4
     109 <211> LENGTH: 24
     110 <212> TYPE: DNA
     111 <213> ORGANISM: Artificial Sequence
     113 <220> FEATURE:
     114 <223> OTHER INFORMATION: Gfi-1 binding sequence
W--> 115 <220> FEATURE:
     116 <221> NAME/KEY: misc_feature
     117 <222> LOCATION: (2)..(2)
     118 <223> OTHER INFORMATION: "n" is "a" or "c"
W--> 121 <220> FEATURE:
     122 <221> NAME/KEY: misc_feature
     123 <222> LOCATION: (7)..(7)
     124 <223> OTHER INFORMATION: "n" is "inosine" or "c"
W--> 126 <220> FEATURE:
     127 <221> NAME/KEY: misc_feature
     128 <222> LOCATION: (15)..(15)
     129 <223> OTHER INFORMATION: "n" is "a" or "t"
     131 <400> SEQUENCE: 4
W--> 132 anaaaanaaa tcacngcata tgcc                                      24
```

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Input Set : A:\PTO.VSK.txt
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135 <210> SEQ ID NO: 5
136 <211> LENGTH: 33
137 <212> TYPE: DNA
138 <213> ORGANISM: Artificial Sequence
140 <220> FEATURE:
141 <223> OTHER INFORMATION: Gfi-1 binding sequence
143 <400> SEQUENCE: 5
144 accatcacca cataaatcac tgcctatcct gtg                              33
147 <210> SEQ ID NO: 6
148 <211> LENGTH: 33
149 <212> TYPE: DNA
150 <213> ORGANISM: Artificial Sequence
152 <220> FEATURE:
153 <223> OTHER INFORMATION: Gfi-1 binding oligonucleotide
155 <400> SEQUENCE: 6
156 accatcacca cataaatcac tgcctatcct gtg                              33
159 <210> SEQ ID NO: 7
160 <211> LENGTH: 24
161 <212> TYPE: DNA
162 <213> ORGANISM: Artificial Sequence
164 <220> FEATURE:
165 <223> OTHER INFORMATION: Gfi-1 binding oligonucleotide
167 <400> SEQUENCE: 7
168 caccacatag atcactgcct atcc                                        24
171 <210> SEQ ID NO: 8
172 <211> LENGTH: 24
173 <212> TYPE: DNA
174 <213> ORGANISM: Artificial Sequence
176 <220> FEATURE:
177 <223> OTHER INFORMATION: Gfi-1 binding oligonucleotide
179 <400> SEQUENCE: 8
180 caccacataa ctcactgcct atcc                                        24
183 <210> SEQ ID NO: 9
184 <211> LENGTH: 24
185 <212> TYPE: DNA
186 <213> ORGANISM: Artificial Sequence
188 <220> FEATURE:
189 <223> OTHER INFORMATION: Gfi-1 binding oligonucleotide
191 <400> SEQUENCE: 9
192 caccacataa ataactgcct atcc                                        24
195 <210> SEQ ID NO: 10
196 <211> LENGTH: 24
197 <212> TYPE: DNA
198 <213> ORGANISM: Artificial Sequence
200 <220> FEATURE:
201 <223> OTHER INFORMATION: Gfi-1 binding oligonucleotide
203 <400> SEQUENCE: 10
204 caccacataa atcaatgcct atcc                                        24
207 <210> SEQ ID NO: 11
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RAW SEQUENCE LISTING   DATE: 08/21/2002
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```
208 <211> LENGTH: 24
209 <212> TYPE: DNA
210 <213> ORGANISM: Artificial Sequence
212 <220> FEATURE:
213 <223> OTHER INFORMATION: Gfi-1 binding oligonucleotide
215 <400> SEQUENCE: 11
216 caccacataa atcacttcct atcc                                          24
219 <210> SEQ ID NO: 12
220 <211> LENGTH: 500
221 <212> TYPE: DNA
222 <213> ORGANISM: Artificial Sequence
224 <220> FEATURE:
225 <223> OTHER INFORMATION: Gfi-1 binding sequence
227 <400> SEQUENCE: 12
228 gcccgcctgg ctgaccgccc aacgacccccc cgggattgac gtcaataatg acgtatgttc   60
230 ccatagtaac gccaataggg actttccatt gacgtcaatg ggtggagtat ttacggtaaa   120
232 ctgcccactt ggcagtacat caagtgtatc atatgccaag tacgccccct attgacgtca   180
234 atgacggtaa atggcccgcc tggcattatg cccagtacat gaccttatgg gactttccta   240
236 cttggcagta catctacgta ttagtcatcg ctattaccat ggtgatgcgg ttttggcagt   300
238 acatcaatgg gcgtggatag cggtttgact cacggggatt tccaagtctc cacccccattg   360
240 acgtcaatgg gagtttgttt tggcaccaaa atcaacggga ctttccaaaa tgtcgtaaca   420
242 actccgcccc attgacgcaa atgggcggta ggcgtgtacg gtgggaggtc tatataagca   480
244 gagctcgttt agtgaaccgt                                               500
247 <210> SEQ ID NO: 13
248 <211> LENGTH: 500
249 <212> TYPE: DNA
250 <213> ORGANISM: Artificial Sequence
252 <220> FEATURE:
253 <223> OTHER INFORMATION: Gfi-1 binding sequence
255 <400> SEQUENCE: 13
256 gcccgcctgg ctgaccgccc aacgacccccc cgggattgac gtcaataatg acgtatgttc   60
258 ccatagtaac gccaataggg actttccatt gacgtcaatg ggtggagtat ttacggtaaa   120
260 ctgcccactt ggcagtacat caagtgtatc atatgccaag tacgccccct attgacgtca   180
262 atgacggtaa atggcccgcc tggcattatg cccagtacat gaccttatgg gactttccta   240
264 cttggcagta catctacgta ttagtcatcg ctattaccat ggtgatgcgg ttttggcagt   300
266 acatcaatgg gcgtggatag cggtttgact cacggggagt tccaagtctc cacccccattg   360
268 acgtcaatgg gagtttgttt tggcaccaaa ctcaacggga ctttccaaaa tgtcgtaaca   420
270 actccgcccc attgacgcaa atgggcggta ggcgtgtacg gtgggaggtc tatataagca   480
272 gagctcgttt agtgaaccgt                                               500
275 <210> SEQ ID NO: 14
276 <211> LENGTH: 500
277 <212> TYPE: DNA
278 <213> ORGANISM: Artificial Sequence
280 <220> FEATURE:
281 <223> OTHER INFORMATION: Gfi-1 binding sequence
283 <400> SEQUENCE: 14
284 gcccgcctgg ctgaccgccc aacgacccccc cgggattgac gtcaataatg acgtatgttc   60
286 ccatagtaac gccaataggg actttccatt gacgtcaatg ggtggagtat ttacggtaaa   120
288 ctgcccactt ggcagtacat caagtgtatc atatgccaag tacgccccct attgacgtca   180
```

RAW SEQUENCE LISTING   DATE: 08/21/2002
PATENT APPLICATION: US/09/202,549D   TIME: 15:19:43

Input Set : **A:\PTO.VSK.txt**
Output Set: **N:\CRF4\08212002\I202549D.raw**

```
290 atgacggtaa atggcccgcc tggcattatg cccagtacat gaccttatgg gactttccta    240
292 cttggcagta catctacgta ttagtcatcg ctattaccat ggtgatgcgg ttttggcagt    300
294 acatcaatgg gcgtggatag cggtttgact cacgggactt tccaagtctc cacccccattg   360
296 acgtcaatgg gagtttgttt tggcaccaaa actaacggga ctttccaaaa tgtcgtaaca    420
298 actccgcccc attgacgcaa atgggcggta ggcgtgtacg gtgggaggtc tatataagca    480
300 gagctcgttt agtgaaccgt                                                 500
303 <210> SEQ ID NO: 15
304 <211> LENGTH: 12
305 <212> TYPE: DNA
306 <213> ORGANISM: Artificial Sequence
308 <220> FEATURE:
309 <223> OTHER INFORMATION: Gfi-1 binding sequence
311 <400> SEQUENCE: 15
312 caaatcaata ac                                                         12
315 <210> SEQ ID NO: 16
316 <211> LENGTH: 12
317 <212> TYPE: DNA
318 <213> ORGANISM: Artificial Sequence
320 <220> FEATURE:
321 <223> OTHER INFORMATION: Gfi-1 binding sequence
323 <400> SEQUENCE: 16
324 taaatctgtg tg                                                         12
327 <210> SEQ ID NO: 17
328 <211> LENGTH: 12
329 <212> TYPE: DNA
330 <213> ORGANISM: Artificial Sequence
333 <220> FEATURE:
334 <223> OTHER INFORMATION: Gfi-1 binding sequence
336 <400> SEQUENCE: 17
337 gaaatcagtt aa                                                         12
340 <210> SEQ ID NO: 18
341 <211> LENGTH: 12
342 <212> TYPE: DNA
343 <213> ORGANISM: Artificial Sequence
346 <220> FEATURE:
347 <223> OTHER INFORMATION: Gfi-1 binding sequence
349 <400> SEQUENCE: 18
350 gaaatcagac ca                                                         12
353 <210> SEQ ID NO: 19
354 <211> LENGTH: 12
355 <212> TYPE: DNA
356 <213> ORGANISM: Artificial Sequence
359 <220> FEATURE:
360 <223> OTHER INFORMATION: Gfi-1 binding sequence
362 <400> SEQUENCE: 19
363 gaaatcagtt aa                                                         12
366 <210> SEQ ID NO: 20
367 <211> LENGTH: 12
368 <212> TYPE: DNA
```

```
RAW SEQUENCE LISTING ERROR SUMMARY        DATE: 08/21/2002
PATENT APPLICATION:   US/09/202,549D       TIME: 15:19:45

        Input Set : A:\PTO.VSK.txt
        Output Set: N:\CRF4\08212002\I202549D.raw
```

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

```
Seq#:1; N Pos. 1,9
Seq#:2; N Pos. 9
Seq#:3; N Pos. 1,3,4,5,6,9
Seq#:4; N Pos. 2,7,15
```

VERIFICATION SUMMARY   DATE: 08/21/2002
PATENT APPLICATION: US/09/202,549D   TIME: 15:19:45

Input Set : **A:\PTO.VSK.txt**
Output Set: **N:\CRF4\08212002\I202549D.raw**

```
L:37 M:283 W: Missing Blank Line separator, <220> field identifier
L:39 M:283 W: Missing Blank Line separator, <220> field identifier
L:50 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:60 M:283 W: Missing Blank Line separator, <220> field identifier
L:66 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0
L:76 M:283 W: Missing Blank Line separator, <220> field identifier
L:105 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:115 M:283 W: Missing Blank Line separator, <220> field identifier
L:132 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
L:562 M:283 W: Missing Blank Line separator, <220> field identifier
```